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LATRIDIUS USOVAE, A NEW SPECIES OF THE MINUTE BROWN SCAVENGER BEETLES (COLEOPTERA, LATRIDIIDAE) FROM ROVNO AMBER

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***Latridius usovae*, a New Species of the Minute Brown Scavenger Beetles (Coleoptera, Latridiidae) from Rovno Amber.** Sergi, T. A., Perkovsky, E. E. — Based on a fossil specimen from Late Eocene Rovno amber, *Latridius usovae* Sergi et Perkovsky, sp. n. is described. It differs from *Latridius alexeevi* Bukejs, Kirejtshuk et Rücker, 2011 and *L. jantarius* Borowiec, 1985 (both described from Baltic amber) by the shape of pronotum, elytra, mid and hind tibiae.

Key words: Coleoptera, Latridiidae, *Latridius*, new species, Late Eocene, Rovno amber.

***Latridius usovae* — новый вид скрытников (Coleoptera, Latridiidae) из ровенского янтаря.** Серги Т. А., Перковский Е. Э. — Из позднеэоценового ровенского янтаря описан *Latridius usovae* Sergi et Perkovsky, sp. n. Новый вид отличается от *Latridius alexeevi* Bukejs, Kirejtshuk et Rücker, 2011 и *L. jantarius* Borowiec, 1985 из балтийского янтаря формой переднеспинки, надкрыльев, средних и задних голеней.

Ключевые слова: Coleoptera, Latridiidae, *Latridius*, новый вид, поздний эоцен, ровенский янтарь.

Introduction

The genus *Latridius* Herbst, 1793 is represented in extant fauna by 18 species, among them 14 are recorded from the Palaearctic Region (Johnson, 2007; Rücker, 2010; Johnson, Rücker, 2011). Both adults and larvae are found in sporulating or decomposing fruiting bodies of Basidiomycota, decaying vegetation, on surface of bark and wood, in animal nests, as well as in various synanthropic habitats. Most of species show a low level of habitat and nutritional preference, and are considered to be mycetophagous, feeding on spores, conidia or mycelium of Ascomycota and Zygomycota (Hinton, 1941; Rücker, 1983; Krasutsky, 2005); one species is ascertained to be obligately or facultatively feeding on spores of Myxomycota (Dudka et al., 2002; Trikhleb, 2008).

The new species from Rovno amber belongs to the family Latridiidae as it has combination of the following characters: small size; elongate-oval habitus; procoxal cavities closed; tarsi 3–3–3, simple. Glabrous and rugosely sculptured body surface shows its attribution to the subfamily Latridiinae. The combination of characters of the new species as follows: eye large and convex, disk of pronotum without paired longitudinal carinae, scutellum distinct, punctures of elytra arranged in 8 regular rows, procoxa distinctly separated by low prosternal process, trochanters about as long as broad show the new species is to be placed in the genus *Latridius*.

There are two described extinct *Latridius* species: *L. jantarius* (Borowiec, 1985) and *L. alexeevi* Bukejs, Kirejtshuk et Rücker, 2011 (Borowiec, 1985; Bukejs et al., 2011; Reike, 2012); both described from Baltic amber.

Rovno amber is the southern coeval of famous Baltic amber (Perkovsky et al., 2010).

The holotype of new species comes from either Pugach (Klesov) or Vol'noje (Dubrovitsa) quarries (Perkovsky et al., 2003). It is deposited in the amber collection of the I. I. Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine, Kyiv (SIZK).

Photographs were taken at the Paleontological Institute, Russian Academy of Sciences (Moscow) by Alexandr P. Rasnitsyn and Dmitry V. Vasilenko using a Leica M 165C microscope and Leica DFC 425 camera.

LATRIDIIDAE Erichson, 1842**LATRIDIINAE** Erichson, 1842**Genus** *Latridius* Herbst, 1793*Latridius usovae* Sergi et Perkovsky, **sp. n.** (fig. 1, 2)

Material. Holotype, SIZK UA-51, sex unknown; Rovno amber, Late Eocene. The specimen in a small triangular amber piece (length about 11 mm and width 7 mm).

Most part of the head, right half of pronotum, right antenna and segments 1–4 of the left antenna, right fore and mid tibiae missing. Sculpture of the transversal impression on pronotum (from fovea to fovea) and sculpture of the fore third and lateral parts of the first visible sternite not visible.

Description. Length about 1.0 mm, width 0.53 mm. Dorsal surface unicolorous brownish, glabrous. Elongate, moderately convex ventrally and with strongly convex elytra. Integument with slight shine.

Head about 0.3 mm wide, with distinct punctures larger than eye facets in diameter; temple rounded, about 0.5 of eye length; vertex evenly convex. Neck not visible. Eye large, longitudinal diameter 0.07 mm, strongly convex, with distinct facets (diameter of eye about 10 facets).

Antenna moderately slender. Three remaining flagellomeres subequal in length and about as long as broad; penultimate flagellomere short and transverse; two remaining segments of club thick and forming loose club twice as wide as other flagellomeres.

Pronotum transverse, 0.25 mm long, 0.32 mm wide; widest in anterior third, narrowed posteriad; anterior margin convex, lateral margins in anterior 1/2 convex and rounded, in posterior third subparallel, posterior margin straight; anterior angles widely rounded, posterior angles narrowly rounded; lateral sides explanate. Pronotum covered with dense coarse punctures, larger than eye facets in diameter, interspaces much smaller than puncture diameter; basal and lateral sides bordered. Disc evenly convex and gradually sloping to sides. Pronotum with transverse impression at base (obscured by milky film); two deep oval depressions near posterior angles; shallow median longitudinal depression. Scutellum small, transverse, 0.03 mm wide.

Elytra 0.7 mm long, about 1.3 times as long as wide, widest before the middle; moderately convex at disc and rather steeply sloping at sides, lateral sides narrowly explanate. Humeri distinct. Punctures in elytral rows very large and deep, about two to three times as large as pronotal punctures, becoming slightly smaller on elytral apex; interspaces about half puncture diameter. Punctures forming 8 regular rows, with interstriae narrow, about 0.5 puncture diameter; interstriae 1, 3, 5 and 7 slightly carinate; interstriae 3 and 7 closed posteriad. Interstria 1 not widened; first punctured row with about 26 punctures. Elytra very narrowly rounded at apex. Epipleurae of elytra wider in anterior part and gradually narrowing posteriorly, in anterior half with row of large punctures.

Fully winged; distal half of right wing and apex of left wing visible; hind margin with hairs 0.02 mm long.

Procoxa projecting, prosternum low, without elevated ridge between procoxae.

Metasternum with pit just behind mesocoxa (obscured by milky film), with radial lines long, reaching posterior third of metasternum; with shallow longitudinal furrow in posterior half. Meso- and metasternum, except pits with radial lines, closely and coarsely punctate (approximately as on pronotum). Abdomen with

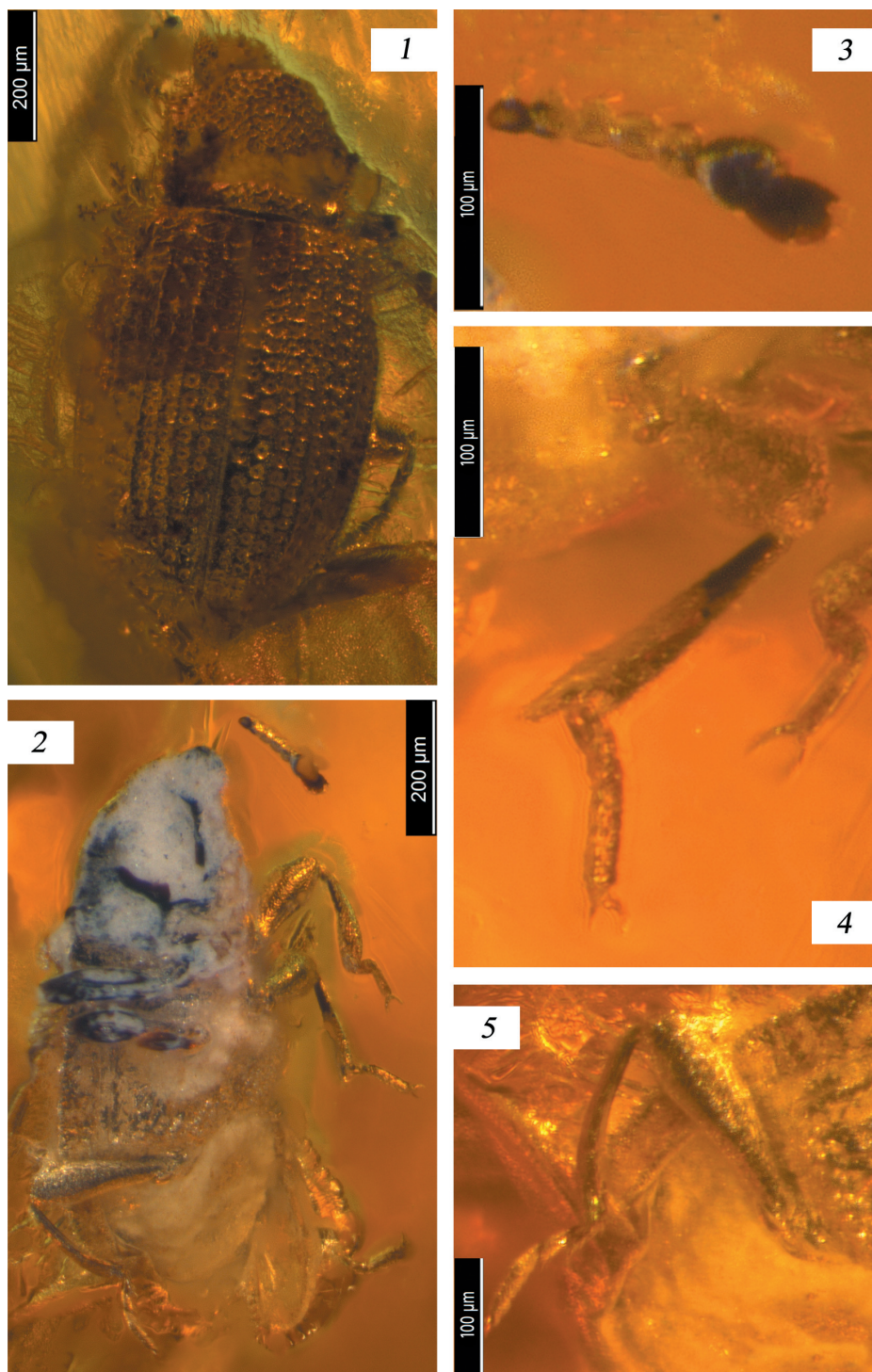


Fig. 1. *Latridius usovae* sp. n.: 1 — body, dorsal; 2 — body, ventral; 3 — antenna; 4 — middle leg; 5 — hind leg.

Рис. 1. *Latridius usovae* sp. n.: 1 — вид сверху; 2 — вид снизу; 3 — антенна; 4 — средняя нога; 5 — задняя нога.

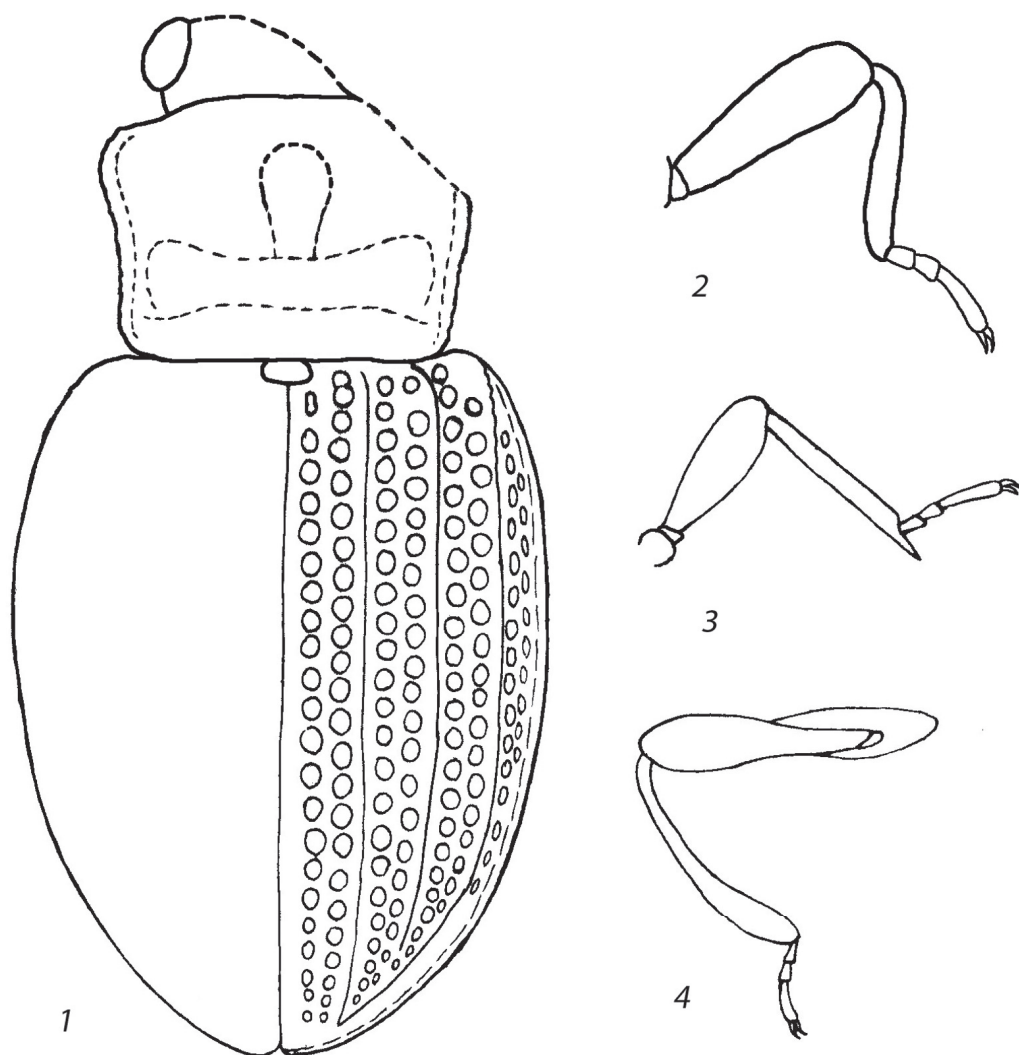


Fig. 2. *Latridius usovae* sp. n.: 1 — body, dorsal; 2 — fore leg; 3 — middle leg; 4 — hind leg.

Рис. 2. *Latridius usovae* sp. n.: 1 — вид сверху; 2 — передняя нога; 3 — средняя нога; 4 — задняя нога.

five visible ventrites, lateral parts of them obscured by milky film. First abdominal ventrite longest (as long as ventrites 2–4 combined), covered with dense punctures, slightly finer than on metasternum, ventrite 2 with fine sparse punctures, ventrites 3–5 nearly smooth.

Legs moderately long and narrow. Trochanters obliquely truncate, about as long as broad. Femora spindle-shaped, thickened distally and 2.0–2.5 times as wide as tibiae; fore femur with longitudinal wrinkles on ventral surface. Tibiae thin, as long as femora; fore tibia feebly curved, 0.2 mm long; mid tibia straight, 0.2 mm long, with big straight apical tooth as long as tarsomere 1; hind tibia slender, distinctly

curved inwards, 0.22 mm long. Fore and mid tarsi about 2/3 as long as respective tibiae, hind tarsus about 2/5 as long as hind tibia; tarsomeres 1 and 2 equal in length; tarsomere 3 distinctly longer than both previous ones together. Claws simple, small and thin.

Etymology. The species named in honour of Professor Zinaida Usova (1924–2013), scientific adviser of the first author.

Comparison. The new species differs from *L. jantarius* by the anterior angles of pronotum not projecting forward, lack of depressions at anterior angles of pronotum, shallow median longitudinal depression (*L. jantarius* has anterior angles of pronotum moderately projecting forward, disc of pronotum with depression near middle of lateral margin and with deep median longitudinal depression); shorter elytra, lack of strong carinae on interstriae of elytra. *L. usovae* differs from *L. alexeevi* by having anterior angles of pronotum not projecting forward, lacking depressions at anterior angles of pronotum (in *L. alexeevi* anterior angles of pronotum moderately projecting anteriorly, disc of pronotum with shallow depressions at anterior angles), and in having elytra about 1.3 times as long as wide (vs. about 1.5 times in *L. alexeevi*). The new species differs from both species by having hind tibia distinctly curved mesally.

The new species is similar to the extant species *L. crenatus* (Le Conte, 1855) from the western Canada and USA (Fall, 1899; Hatch, 1962) in the shape of pronotum and punctuation of elytra, but clearly differs in having meso- and metasternum closely and coarsely punctured, ventrite 1 densely punctured and in the shape of tibiae.

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